CLAIMS:

1. A manufacturing method for an injection-molded and in-mold decorated article, the method including, setting a decorating film (5) between a first mold element (1, 71) and a second mold element (1, 72) placed in opposition to each other, injecting molten molding resin (4) into a molding space (3) defined by the decorating film and the first mold element, and solidifying the molding resin filled in the molding space, thereby manufacturing the injection-molded and in-mold decorated article (10), wherein

the molding space includes:

a product molding space (31), and

a resin-discharging-use molding space (33) which is formed so as to be adjacent to and communicative with at least part of a periphery of the product molding space and into which the molding resin is let to flow for discharge of the molding resin from the product molding space,

the method comprising:

injecting the molding resin into the product molding space;

discharging part of the injected molding resin from the product molding space into the resin-discharging-use molding space;

completing filling of the molding resin into the product molding space and the resin-discharging-use molding space; and

solidifying the molding resin while decorating a surface of the molding resin with the decorating film, so that the injection-molded and in-mold decorated article is manufactured.

2. The manufacturing method for the injection-molded and in-mold decorated article as defined in Claim 1, wherein

the molding space includes a resin-injection-use molding space (32) which is formed so as to be adjacent to and communicative with at least part of a periphery of the product molding space and into which the molding resin is injected from outside of the molding space,

the method further comprising:

injecting the molding resin from outside of the molding space into the resin-injection-use molding space; and

making the injected molding resin flow from the resin-injection-use molding space into the product

molding space, by which injection of the molding resin into the product molding space is fulfilled.

3. The manufacturing method for the injection-molded and in-mold decorated article as defined in Claim 1, wherein

the molding space includes:

a first said product molding space and a second said product molding space, which are communicative with each other, and

a common said resin-discharging-use molding space (33) which is placed between the first product molding space and the second product molding space and which is communicative with the first product molding space and the second product molding space,

the method further comprising:

injecting the molding resin into the first product molding space and the second product molding space;

discharging, into the common resin-discharging-use molding space, part of the molding resin injected into the first product molding space and part of the molding resin injected into the second product molding space; and

completing filling of the molding resin into the first product molding space, the second product molding space and the common resin-discharging-use molding space.

4. The manufacturing method for the injection-molded and in-mold decorated article as defined in Claim 2, wherein

the molding space includes:

a first said product molding space and a second said product molding space, which are communicative with each other, and

a common said resin-injection-use molding space (32),

the method further comprising:

injecting the molding resin from outside of the molding space into the common resin-injection-use molding space;

making the injected molding resin flow from the resin-injection-use molding space into the first product molding space and the second product molding space, by which filling of the molding resin is fulfilled.

5. The manufacturing method for the injection-molded and in-mold decorated article as defined in Claim 1, wherein injection of the molding resin is performed in a

state that, with the decorating film placed between the first mold element (1) and the second mold element (2), the first mold element and the second mold element are clamped to make the molding space hermetically closed.

6. The manufacturing method for the injection-molded and in-mold decorated article as defined in Claim 5, wherein, after the filling of the molding resin into the molding space, a capacity of the molding space is reduced while compressing the filled molding resin.

7. The manufacturing method for the injection-molded and in-mold decorated article as defined in Claim 1, wherein, with the decorating film is placed between the first mold element (71) and the second mold element (72) and making the first mold element and the second mold element approached by each other so as to be in a condition the molding space is opened, injection of the molding resin is performed, and thereafter the first mold element and the second mold element is clamped so that a capacity of the molding space is reduced while compressing the filled molding resin.

8. A mold for injection-molding with in-mold decoration for manufacturing an injection-molded and in-

mold decorated article (10), by setting a decorating film (5) placed between a first mold element (1, 71) and a second mold element (1, 72) placed in opposition to each other, injecting molten molding resin (4) into a molding space (3) defined by the decorating film and the first mold element, and solidifying the molding resin filled in the molding space while decorating a surface of the molding resin with the decorating film, wherein

the molding space comprises:

a product molding space (31) into which the molten molding resin is injected; and

a resin-discharging-use molding space (33) which is formed so as to be adjacent to and communicative with at least part of a periphery of the product molding space and into which part of the molding resin injected into the product molding space is let to flow and discharged from the product molding space.

9. The mold for injection-molding with in-mold decoration as defined in Claim 8, wherein the molding space further comprises a resin-injection-use molding space (32) which is formed so as to be communicative with at least part of the product molding space and into which the molding resin is injected from outside of the molding space, and moreover which lets the injected molding resin

flow into the product molding space so that injection of the molding resin into the product molding space is fulfilled.

10. The mold for injection-molding with in-mold decoration as defined in Claim 8, further comprising a film holding portion (23) which is formed as generally protruded portion on a surface of the second mold element, with which the decorating film in the resin-discharging-use molding space is to be brought into contact by the injection of the molding resin into the resin-discharging-use molding space, and which serves to hold placement of the decorating film while removing looseness of the decorating film by putting the decorating film into close contact with a surface of the protruded portion.

11. The mold for injection-molding with in-mold decoration as defined in Claim 10, further comprising a plurality of suction portions (25) which are set at the film holding portion or its vicinities in the surface of the second mold element and which serve for sucking and holding the decorating film in contact therewith.

12. The mold for injection-molding with in-mold decoration as defined in Claim 8, further comprising:

a recess portion (15) formed along an entirety or part of an outer periphery of the molding space in either one of the first mold element or the second mold element; and

a protruded engagement portion (16) which is formed on the other of the first mold element or the second mold element so as to correspond to the placement of the recessed portion and engage with the recess portion in the clamping state of the first mold element and the second mold element, wherein

in the clamping state of the first mold element and the second mold element with the decorating film interposed therebetween, tension is imparted to the decorating film by making the recessed portion and the engagement portion engaged with each other via the decorating film.

13. The mold for injection-molding with in-mold decoration as defined in Claim 8, further comprising an air vent portion (19) for discharging gas present in the resin-discharging-use molding space to outside of the molding space in a vicinity of a boundary with the product molding space in the resin-discharging-use molding space.

14. The mold for injection-molding with in-mold decoration as defined in Claim 8, wherein

the molding space comprises:

a first said product molding space;

a second said product molding space which is communicative with the first product molding space; and

a common said resin-discharging-use molding space (33) into which part of the molding resin injected into the first product molding space and part of the molding resin injected into the second product molding space are discharged and let to flow.

15. The mold for injection-molding with in-mold decoration as defined in Claim 9, wherein

the molding space comprises:

a first said product molding space;

a second said product molding space which is communicative with the first product molding space; and

a common said resin-injection-use molding space (32) into which the molding resin is injected from outside of the molding space and which lets the injected molding resin injected into the first product molding space and the second product molding space so that filling of the molding resin is fulfilled.